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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,847	03/30/2004	Tsuyoshi Kamada	1324.70222	3128
24978 7590 03/08/2010 GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606				
EXAMINER SHAPIRO, LEONID				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/812,847

Applicant(s)

KAMADA ET AL.

Examiner

Leonid Shapiro

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 82-85 is/are pending in the application.
- 4a) Of the above claim(s) 8-81 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 82-85 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the newly introduced limitation of independent claims 1,83-84: "combining, **within a single flame**, a higher-luminance pixel, which is a pixel that is driven at a higher luminance than luminance data of an image to be displayed, and a lower-luminance pixel, which is a pixel that is driven at a lower luminance than the luminance data" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The newly introduced limitation of independent claims 1,83-84: "combining, within a single frame, a higher-luminance pixel, which is a pixel that is driven at a higher luminance than luminance data of an image to be displayed, and a lower-luminance pixel, which is a pixel that is driven at a lower luminance than the luminance data" is not described in the Specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-3,6-7, 82-85 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The newly introduced limitation of independent claims 1,83-84: "combining, within a single frame, a higher-luminance pixel, which is a pixel that is driven at a higher

luminance than luminance data of an image to be displayed, and a lower-luminance pixel, which is a pixel that is driven at a lower luminance than the luminance data" is not described in the Specification or shown in Figures.

Claims 2-3,6-7, 82,85 depend on claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3,6,82-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (7,205,970) in view of Kimura (US 2002/0118153 A1).

As to claims 1,4,83-84 Kim teaches an image processing method (col. 1, lines 8-12), comprising the steps of:

combining a higher-luminance pixel to be driven at a higher luminance than luminance data of an image to be displayed and a lower-luminance pixel to be driven at lower luminance than the luminance data (figs. 7A-7B, items A-B, from col. 6, line 66 to col. 7, line 25); and

determining a luminance on the higher-luminance pixel and luminance on the lower-luminance pixel so that a luminance can be obtained substantially equal to a

desired luminance based on the luminance data (col. 7, lines 36-41) frame by frame (col. 7, lines 7-9).

Kim et al. does not disclose an area (existence) ratio of the higher-luminance pixel and the lower-luminance pixel.

Kimura teaches an area (existence) ratio of the higher-luminance pixel and the lower-luminance pixel (paragraphs 0002,0017,0022).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Kimura into Kim et al. system in order to implement a grayscale function (par. 0002 in the Kimura reference).

As to claim 2, Kim teaches the combination of the higher-luminance pixel and the lower-luminance pixel changes frame by frame (col. 7, lines 7-19).

As to claims 3,5 it generally considered to be within the ordinary skill in the art to adjust, vary, select or optimize the numerical parameters or values of any system absent of showing criticality of in a particular recited value. Thus, it would have been obvious to one of ordinary skill in the art at the time of invention to interchange value the area ratio. Such a limitation would have been considered as obvious variation on the matter of selected area ratio which fails patentably distinguish over the prior art of Bowman et al. and Yates et al. and Jones. In re Rose, 105 USPQ 237 (CCPA 1955).

As to claim 6, Kim teaches a liquid-crystal display device having a liquid crystal sealed between an array substrate and an opposite substrate that are oppositely arranged with a predetermined cell gap, the liquid-crystal display device characterized

by having a drive circuit for realizing an image processing method (fig. 5, items 100,400, col. 23-31).

As to claim 6, Kim teaches an area of the lower-luminance pixel is equal to an area of the higher-luminance pixel since high and low luminance supplied on temporary basis (from col. 6, line 66 to col. 7, line 19).

As to claim 85, Kim teaches determining of the luminance occurs frame by frame (fig. 7 and corresponding text).

Notice, that area ratio is not changed frame by frame (fig. 7B in the Applicant's disclosure).

2. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. and Kimura in view of Koma (7,133,101 B2).

Kim and Kimura do not disclose the liquid crystal has a negative dielectric anisotropy and is in a vertical alignment under no application of voltage.

Koma teaches the liquid crystal has a negative dielectric anisotropy and is in a vertical alignment under no application of voltage (col. 2, lines 24-35).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Koma teachings into Kim et al. and Kimura system in order to achieve a wider viewing angle (col. 3, lines 1-6).

Response to Arguments

Applicant's arguments filed 12/01/09 have been fully considered but they are not persuasive:

On page 12, last paragraph of Remark, Applicant's stated that Claim 1 now calls for combining, within a single frame, a higher-luminance pixel driven at a higher luminance than luminance data of an image to be displayed, and a lower-luminance pixel driven at a lower luminance than the luminance data. Support for this feature can be found in FIG. 1B and the related description, which shows a higher luminance pixel 1a and a plurality of lower luminance pixels 1b surrounding the higher luminance pixel. FIGs. 7A and 7B including the related description further provide support for this feature. However, fig. 1B and the related description do not confirm combining, within a single frame, a higher-luminance pixel driven at a higher luminance than luminance data of an image to be displayed, and a lower-luminance pixel driven at a lower luminance than the luminance data and fig. 7 shows four frames.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephone Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. S./

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Examiner, Art Unit 2629

03/01/10

/Richard Hjerpe/

Supervisory Patent Examiner, Art Unit 2629